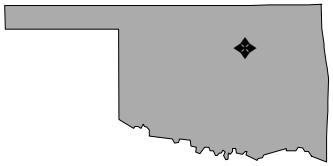
Size: 5,044 acres
Mission: Repair aircraft, weapons, and engines
HRS Score: 42.24; placed on NPL in July 1987
IAG Status: IAG signed in September 1988
Contaminants: Organic solvents, heavy metals, and low-level radioactive material
Media Affected: Groundwater, surface water, sediment, and soil
Funding to Date: $144.8 million
Estimated Cost to Completion (Completion Year): $163.7 million (FY2023)
Final Remedy in Place or Response Complete Date for All Sites: FY2008



Oklahoma City, Oklahoma

Restoration Background

Environmental studies at Tinker Air Force Base revealed a 220-acre contaminant plume in the upper aquifer at Soldier Creek and Building 3001. Additional sites include landfills, underground storage tanks (USTs), waste pits, fire training areas, spill sites, and low-level radioactive waste sites.

The installation has implemented numerous Interim Actions, including removal of contaminated soil and USTs and installation of landfill caps, free-product recovery systems, bioventing systems, a biostripping system, and a solidification and stabilization system. A Record of Decision (ROD) was signed for Building 3001 in FY90, and a groundwater extraction and treatment system is operating at the site. A ROD for Soldier Creek was signed in FY93. In FY94, the installation participated in EPA's Superfund Innovative Technology Evaluation program.

In FY95, the installation expanded the fuel recovery system at the North Tank Operable Unit (OU) and removed all USTs from four sites. The installation also began a Phase II RCRA Facility Investigation (RFI) for 18 sites and completed the majority of the Remedial Investigation (RI) for the Industrial Wastewater Treatment Plant (IWTP)/Soldier Creek Off-Base Groundwater (SCOBGW) OU. A bioslurping system and a bioventing system were installed to treat fuel-contaminated soil. In addition, Remedial Actions (RAs) involving treatment of fuel and solvent contamination were implemented at two sites, and a two-dimensional (2-D), high-resolution seismic reflection study was completed to identify preferential contaminant-migration pathways. The installation began using a geographic information system (GIS) to improve site characterization.

The installation completed a Phase II RFI report in FY96. Actions to increase product recovery and reduce the volume of extracted groundwater were implemented at fuel-contaminated sites. Seven interim corrective actions were initiated, and one was completed. A draft final RI and Feasibility Study (FS) of the IWTP/SCOBGW OU also was completed.

In FY97, the installation removed low-level radioactive waste and completed the cleanup of Radioactive Waste Disposal Site 1030W. In addition, the base completed the capping preparation for Landfill 2, capping of Landfill 4, construction of a bioventing system for the Fuel Purge Facility, and construction of a treatment system for the Area A Service Station. These early response actions reduced the risk of five high-risk sites to low risk. The installation used 2-D/3-D shallow seismic reflection, a Global Positioning System (GPS), and a GPS magnetic and electromagnetic induction survey.

The installation formed its Restoration Advisory Board in FY94.

FY98 Restoration Progress

The installation completed construction of RCRA caps for Landfills 2 and 5. Sixty million gallons of groundwater was treated and 100 gallons of trichloroethene was recovered. A groundwater treatment plant for the southwest quadrant of the base was constructed. This treatment system addresses the groundwater contamination under 25 percent of the Installation Restoration Program sites on base.

The installation reduced the relative risk of four high-risk sites to low risk. This reduction puts Tinker on track to eliminate all high-risk sites by FY2002, ahead of the Air Force and DoD target date of FY2007.

The Proposed Plan and the ROD for the SCOBGW OU were delayed, pending regulatory concurrence. Source removal began at Waste Pit 1 but requires further investigation for delineation of this site and completion of the remediation.

Plan of Action

- Complete FS, risk assessment, Proposed Plan, and ROD for SCOBGW OU and begin RA in FY99
- Install a RCRA cap at Landfill 6 in FY99
- Construct a groundwater treatment system for the Gator Groundwater Management Unit in FY99
- Close the 3700 Fuel Yard and Purge Facility sites in FY99
- Finish 5-year review of National Priorities List (NPL) treatment systems in FY99
- Close all five remaining radioactive waste disposal sites in FY00
- Complete construction of treatment system at 290 Fuel Farm in FY00

FY99 Funding by Phase and Relative Risk